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10/562,007

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EXAMINER

EWALD, MARIA VERONICA

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--|--|--|
| Office Action Summary | Application No. 10/562,007 | Applicant(s) KAKIHARA ET AL. | |
| | Examiner MARIA VERONICA D. EWALD | Art Unit 1791 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3 and 5-21 is/are pending in the application.
- 4a) Of the above claim(s) 1,3,5-7 and 15-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-14,20 and 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 8, 14 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Steingiser (U.S. 3,830,893). Steingiser teaches a resin molding heat-treating apparatus for partially heat-treating a resin molding at a high temperature, the apparatus comprising: a heating section having a shape conforming to a contour line of a portion of the resin molding to be heated, including a contour line of an end of the portion (item 20 – figure 2; item 56 – figure 4; column 4, lines 23 – 35); and a fixing jig for fixing the resin molding removably (item 30 – figure 3; column 4, lines 48 – 55), wherein the heating section partially heat-treats a parting line portion of the resin molding or a specific portion of the resin molding which is apt to undergo peeling of a thin surface resin film; the portion to be heated of the resin molding is heat-treated at a temperature while being approximated to the heating section (column 4, lines 48 – 75); wherein the heating section is constructed such that a member analogous to the contour line of the resin molding having a shape about twice as large as the resin molding is heated by a high-frequency heating method (item 56 – figure 4; column 4, lines 1 – 10 and 23 – 35);

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wherein the apparatus is suitable for a resin molding comprising two or more different resins and containing a rubbery or oil or fat substance.

Steingiser teaches a heating apparatus for a resin molding, which in the reference is a preform with a parting line (item 57 – figure 4). The resin molding is secured via a holder or jig and passed into a heating apparatus, wherein high-frequency high heat is applied to heat the preforms. The heating apparatus includes a wave guide which follows the contour of the preform. The portion of the preform being heated is the body, while the neck portion is appropriately shielded because it has already assumed its form (column 4, lines 60 – 67).

Claims 8 – 10 and 20 – 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki (U.S. 4,300,880). Suzuki teaches a resin molding heat-treating apparatus for partially heat-treating a resin molding at a high temperature, the apparatus comprising: a heating section having a shape conforming to a contour line of a portion of the resin molding to be heated, including a contour line of an end of the portion (item 13 – figures 2 and 3); and a fixing jig for fixing the resin molding removably (item 25 – figure 5; column 4, lines 40 – 50), wherein the heating section partially heat-treats a parting line portion of the resin molding or a specific portion of the resin molding, which portion is apt to undergo peeling of a thin surface resin film, the portion to be heated of the resin molding is heat-treated at a high temperature while being approximated to the heating section (column 2, lines 20 – 35); wherein the fixing jig is attached to several positions of a rotary disc (item 45 – figure 3; column 6, lines 15 –

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20) and the portion to be heated of the resin molding projects from the peripheral edge of the rotary disc so as to pass through a heat-treating space formed in the heating section (figure 3); wherein a shield plate having an opening portion of a shape conforming to the contour line of the portion to be heated of the resin molding is disposed in a sandwiching relation to the heating section so that the other portion than the portion to be heated of the resin molding is not heated (item 27 – figure 5; column 4, lines 45 – 50); wherein the apparatus is suitable for a resin molding comprising two or more different resins and containing a rubbery or oil or fat substance.

Suzuki, like Steingiser, teaches a heating assembly for high-temperature heating of a resin molding, which in this case, is also a preform. The preform is held by a jig secured to its neck and is transported into the heating assembly. The jig also includes a neck support or shield plate disposed in sandwiching relation to the heating section, such that the neck support prevents heating of the preform neck. Furthermore, the preform body being heated projects beyond the periphery of the disk.

The Examiner is noting, that Applicant has claimed a resin molding heat-treating apparatus, for *partially* heat-treating a resin molding at a high temperature. The Examiner is noting such a phrase as a recitation of intended use, which does not serve to distinguish the claimed invention from the prior art structure and does not result in a structural difference. The body of the claim fully describes the invention as comprising a heating section with a shape conforming to the contour line of the resin molding and a jig for fixing the resin molding removably. Thus, regardless of what the resin molding is

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as recited in the preamble, the apparatus as claimed is fully described in the claim body. With respect to the references of Steingiser and Suzuki, both teach heating assemblies which follow the contour of the resin molding and jigs for fixing the resin molding removably, wherein the heating can be adjusted or controlled accordingly. Thus, both references teach apparatus fully capable of operating as claimed and fully capable of performing the intended use. Per MPEP 2111.02, "During examination, statements in the preamble reciting the purpose or intended use of the claimed invention must be evaluated to determine whether the recited purpose or intended use results in a structural difference (or, in the case of process claims, manipulative difference) between the claimed invention and the prior art. If so, the recitation serves to limit the claim. See, e.g., *In re Otto*, 312 F.2d 937, 938, 136 USPQ 458, 459 (CCPA 1963); *In re Sinex*, 309 F.2d 488, 492, 135 USPQ 302, 305 (CCPA 1962) (statement of intended use in an apparatus claim did not distinguish over the prior art apparatus). If a prior art structure is capable of performing the intended use as recited in the preamble, then it meets the claim. See, e.g., *In re Schreiber*, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431 (Fed. Cir. 1997)."

In addition, Applicant has claimed the apparatus elements relative to or relating to the contents being worked upon. Per MPEP 2115, Expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim." *Ex parte Thibault*, 164 USPQ 666, 667 (Bd. App. 1969). Furthermore, "[i]nclusion of material or article worked upon by a structure being claimed does not impart patentability to the claims." *In re Young*,

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75 F.2d 996, 25 USPQ 69 (CCPA 1935) (as restated in *In re Otto*, 312 F.2d 937, 136 USPQ 458, 459 (CCPA 1963)). Thus, the type of resin molding being heat-treated, its shape or cross-section, is not accorded patentable weight because the material being worked upon does not impart any distinguishing features to the heating systems being claimed. The Examiner considers such statements to the extent that the prior art apparatus is fully capable of operating as claimed. The Examiner contends that the apparatus of both Steingiser and Suzuki are fully capable of operating as such and can handle a resin molding because the preform (the resin molding) inserted into the heating section may be inserted partially or fully into the heating section (wherein the heating section logically encloses the preform, thereby following its contour line) and thus, because the heating elements are adjustable and controllable, the resin moldings may be partially or fully heat-treated.

Similarly, Applicant has claimed in claim 21, that the apparatus is suitable for a resin molding comprising two or more different resins containing a rubbery or oil or fat substance. Again, Applicant has related the apparatus to be contents being worked upon which does not serve to further distinguish the apparatus and thus, the prior art apparatus of both Steingiser and Suzuki are fully capable of handling such moldings.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki in view of Wiatt, et al. (U.S. 4,963,086). Suzuki teaches the characteristics previously described but do not teach that the fixing jig is attached to several positions of a side edge of a belt member and the portion to be heated of the resin molding projects from the belt member so as to pass through a heat-treating space formed in the heating section.

Modifying the disk of Suzuki such that it is a belt member to convey the resin molding through a heat-treating space, however, is an obvious modification and known to one of ordinary skill in the art of heating preforms. For example, Wiatt, et al. teach a preform transfer assembly, wherein a track and a conveyor belt are used in conjunction with each other, respectively to move a plurality of preforms into proximity with a heating station (figure 8; column 8, lines 27 – 50).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention to configure the apparatus of Suzuki such that the fixing jig is attached to several positions of a side edge of a belt member, as taught by Wiatt, et al. for the purpose of conveying the preforms to the heating station.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki in view of Seefluth (U.S. 3,554,506) and further in view of Pusch (U.S. 3,162,895). Suzuki teaches the characteristics previously described but does not teach that the heating section is constructed such that a large number of fine holes are formed in a

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pipe which is analogous to the contour line of the resin molding and which is bent so as to be in a shape about twice as large as the resin molding, and hot air is ejected through the fine holes to heat the resin molding.

It is already noted that Suzuki teaches a heating assembly following the contour line of the preform, wherein heating is performed via radiant heat.

However, configuring the heating assembly such that hot air is used and further configured such that the heat assembly is a pipe with a plurality of holes, following the contour of the preform is an obvious modification.

It is known that hot air can be used to heat preforms. For example, Seefluth teaches a heating assembly for preforms, wherein the preforms are placed in a heating block. Hot air is then circulated through the preform to heat it (column 2, lines 65 – 75). Though not teaching the use of a pipe with holes, such a modification would also be obvious. For example, Pusch teaches a heating assembly for pipe insulation, wherein the heating element is in the shape of the pipe and includes a plurality of perforations (item 7 – figure 1) through which hot air or steam is fed to cure the piping insulation (column 4, lines 45 – 55).

Therefore, it would have been an obvious modification to one of ordinary skill in the art at the time of the Applicant's invention to configure the apparatus of Suzuki such that hot air is used to heat the preform, wherein the heating assembly is configured as a pipe with a plurality of holes through which the hot air is blown for the purpose of heating the preform on its surface or on portions which are to be heated, as taught by both Seefluth and Pusch.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki in view of Sugiyama, et al. (U.S. 5,032,700). Suzuki teaches the characteristics previously described but do not teach that the heating section is heated by an electromagnetic induction heating method. However, such a modification is known and would have been obvious to one of ordinary skill in the art of heating preforms.

For example, Sugiyama, et al. teach the use of inductive heating coils to heat the heating section used for heating preforms (column 7, lines 45 – 65). The heating coils are wound in a variety of configurations (figures 6 – 7, 9, 11 – 12). Furthermore, such a configuration ensures rapid and high heat delivered to the preform (column 9, lines 20 – 23).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention to configure the apparatus of Suzuki with the electromagnetic induction heating elements of Sugiyama, et al. for the purpose of delivering high and rapid heat to the preform, as taught by Sugiyama, et al.

Response to Arguments

15. Applicant's arguments filed December 8, 2008 have been fully considered but they are not persuasive. Applicant argues that both Steingiser and Suzuki fail to teach heating systems as claimed. The Examiner disagrees.

With respect to the reference of Steingiser, Applicant argues that the reference discloses a method of heating high nitrile preforms but does not teach a heating section

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which conforms to a contour line of the portion of the resin molding to be heated and further does not teach that the resin molding is partially heat-treated. The heating system of Steingiser (figure 3) shows an enclosure which is cylindrically shaped and thus, follows the contour line(s) of the preform itself in order to heat treat the preform surface. Furthermore, one may consider the body of the preform an end portion, while the neck is the top portion, which is not subjected to any heating and thus, the heating system has a shape which conforms to the contour line of the end portion to be heated. In addition, because the duration and frequency (column 2, lines 55 – 60; column 4, lines 1 – 10) of the heating system can be controlled or adjusted, the system is fully capable of partial heat treatment.

With respect to the reference of Suzuki, Applicant argues that the heating chamber of Suzuki does not conform to a contour line of the article to be heated. The Examiner disagrees. The heating chamber of Suzuki follows or encloses the contour line of the preform body to heat the preform itself. Again, the preform body may be considered an end portion, while the neck (which is not heated) is the top portion. Thus, the heating system of Suzuki does follow a contour line of the end portion to be heated. Furthermore, Applicant argues that the heating system of Suzuki does not follow a contour line of the article in Applicant's drawing. Whether or not the heating system of the prior art follows the contour line of Applicant's article is not accorded weight. As noted in the rejection, Applicant has related the apparatus elements to the material being worked upon, which is not accorded patentable weight because such a recitation does not impart any unique features to the apparatus. The Examiner considers such

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limitations to the extent that the prior art apparatus is fully capable of functioning as claimed. If one considers Applicant's arguments that the prior art heating systems of Steingiser and Suzuki do not follow a contour line of the resin molding, the Examiner contends that both logically do because the heating systems are designed to enclose the preform to heat its exterior surface. Furthermore, both prior art heating systems are fully capable of partial heat treatment because the heating systems are adjustable.

With respect to the remaining dependent claims, Applicant primarily argues that the secondary references fail to teach a heating section which follows the contour line of the resin molding and furthermore, Applicant argues that none make up for the deficiencies of Suzuki. The Examiner disagrees. The Examiner has addressed the elements of independent claim 8 with respect to the primary reference of Suzuki, and thus, the Examiner maintains the rejections of the dependent claims in view of the secondary references cited.

Conclusion

16. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARIA VERONICA D. EWALD whose telephone number is (571)272-8519. The examiner can normally be reached on M-F, 8 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Yogendra Gupta can be reached on 571-272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MVE

/Maria Veronica D Ewald/
Examiner, Art Unit 1791